Amendments to the Claims:

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62.   (previously presented) A data retrieval system comprising:

a mass storage medium in which data is stored;

a retrieval device in communication with the mass storage medium, wherein the retrieval device is configured to (1) receive a continuous stream of data from the mass storage medium, and (2) continuously process the data stream to determine whether an approximate match exists therein with respect to a key that is representative of data sought to be retrieved,

wherein the retrieval device is further configured to process the data stream to determine whether an approximate match exists via a pattern comparison between the key and the data stream,

wherein the key is an analog key and wherein the data stream is an analog data stream,

wherein the retrieval device is further configured to perform the pattern comparison by calculating a correlation coefficient that is indicative of a degree of correlation between the key and the data stream, and

wherein the retrieval device is further configured to determine that an approximate match exists if the correlation coefficient has a value larger than or at least equal to a predetermined threshold value.

63.   (previously presented) The system of claim 62 wherein the threshold value is user-specified.

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87.   (previously presented) A data retrieval system comprising:

a mass storage medium in which data is stored; and

a retrieval device in communication with the mass storage medium, wherein the retrieval device is configured to (1) receive a continuous stream of data from the mass storage, and (2) process the data stream to determine whether an approximate match exists via a pattern comparison between the key and the data stream, wherein the retrieval device is further configured to perform the pattern comparison by calculating a correlation coefficient that is indicative of a degree of correlation between the key and the data stream, and wherein the retrieval device is further configured to determine that an approximate match exists if the correlation coefficient has a value larger than or at least equal to a predetermined threshold value.

88.   (previously presented) The system of claim 87 wherein the threshold value is user-specified.

89.   (previously presented) The system of claim 87 wherein the key is an analog key and wherein the data stream is an analog data stream.

90.   (previously presented) The system of claim 87 wherein the key is a digital key and wherein the data stream is a digital data stream.

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92.   (previously presented) A retrieval device for retrieving data from a mass storage medium, said retrieval device comprising an approximate matching unit that is configured to framelessly perform a pattern comparison between a determined key representative of the data sought to be retrieved and a data signal representative of a continuous stream of data read from said mass storage medium, wherein said approximate matching unit is further configured to perform said pattern comparison by computing a correlation coefficient between said data key and said data signal, and wherein said approximate matching unit is further configured to compare said computed

correlation coefficient with a predetermined threshold value to thereby determine whether an approximate match exists between said data key and said data signal.

93.   (previously presented) The retrieval device of claims 92 wherein said predetermined threshold value is adjustable to control whether said approximate matching unit performs an approximate match operation or an exact match operation, and further to control, for an approximate match operation, a degree of approximate matches returned by said approximate match operation.

94.   (previously presented) The retrieval device of claim 92 wherein said approximate matching unit comprises digital logic that is configured to framelessly perform said pattern comparison, wherein said data key is a digital data key and wherein said data signal is a digital data signal.

95.   (previously presented) The retrieval device of claim 94 further comprising an approximate matching and pre-fetch processor, said approximate matching and pre-fetch processor comprising said approximate matching unit, wherein said approximate matching and pre-fetch processor is configured to generate said digital data signal by sampling a continuous stream of analog data read from said mass storage medium at a high rate.

96.   (previously presented) The retrieval device of claim 95 wherein said approximate matching and pre-fetch processor is configured to generate said digital data key by sampling an analog key at a high rate.

97.   (previously presented) The retrieval device of claim 95 wherein said predetermined threshold value is adjustable to control whether said approximate matching unit performs an approximate match operation or an exact match operation, and further to control, for an approximate match operation, a degree of approximate matches returned by said approximate match operation.

98.   (previously presented) The retrieval device of claim 95 wherein said approximate matching unit is implemented on a programmable logic device.

99.   (previously presented) The retrieval device of claim 95 wherein said predetermined threshold value is adjustable to control whether said approximate matching unit performs an approximate match operation or an exact match operation, and further to control, for an approximate match operation, a degree of approximate matches returned by said approximate match operation.

100.   (previously presented) The retrieval device of claim 94 further comprising a data path extending from said mass storage medium to a system bus, said data path comprising a digital decoder and said approximate matching unit, said digital decoder having an input and an output, said input being configured to receive a continuous stream of analog data that corresponds to data read from said mass storage medium, said output being in communication with said approximate matching unit.

101.   (previously presented) The retrieval device of claim 100 further comprising a plurality of said paths connected in parallel between said mass storage medium and said system bus.

102.   (previously presented) The retrieval device of claim 94 further comprising a data path extending from said mass storage medium to a system bus, said data path comprising a digital decoder, error correction circuitry, and said approximate matching unit, said digital decoder having an input and an output, said error correction circuitry having an input and an output, said digital decoder input being configured to receive a continuous stream of analog data that corresponds to data read from said mass storage medium, said digital decoder output being in communication with said error correction circuitry input, said error correction circuit output being in communication with said approximate matching unit.

103. (previously presented) The retrieval device of claim 102 further comprising a plurality of said paths connected in parallel between said mass storage medium and said system bus.

104. (previously presented) The retrieval device of claim 94 wherein said approximate matching unit is directly coupled to said mass storage medium and interfaces said mass storage medium with a processor desiring said retrieved data for processing thereof.

105. (previously presented) The retrieval device of claim 94 wherein said approximate matching unit is implemented on a programmable logic device.

106. (previously presented) The retrieval device of claim 92 wherein said approximate matching unit comprises analog circuitry that is configured to framelessly perform said pattern comparison, wherein said data key is an analog data key and wherein said data signal is an analog data signal.

107. (previously presented) The retrieval device of claim 106 further comprising an approximate matching and pre-fetch processor, said approximate matching and pre-fetch processor comprising said approximate matching unit, wherein said approximate matching and pre-fetch processor is configured to generate said analog data key from a digital data key.

108. (previously presented) The retrieval device of claim 106 wherein said predetermined threshold value is adjustable to control whether said approximate matching unit performs an approximate match operation or an exact match operation, and further to control, for an approximate match operation, a degree of approximate matches returned by said approximate match operation.

109. (previously presented) The retrieval device of claim 106 wherein said approximate matching unit is directly coupled to said mass storage medium and interfaces said mass storage medium with a processor desiring said retrieved data for processing thereof.

110. (previously presented) The retrieval device of claim 92 wherein said approximate matching unit is implemented on a programmable logic device.

111. (previously presented) The retrieval device of claim 92 wherein said approximate matching unit is directly coupled to said mass storage medium and interfaces said mass storage medium with a processor desiring said retrieved data for processing thereof.

112. (currently amended) A method for retrieving dada data from a mass storage medium, said method comprising the steps of:

 receiving a search command from a processor for said mass storage medium,

 determining a key representative of the data desired to be retrieved from said mass storage medium,

 making a pattern comparison between said key with and a data signal representative of a continuous stream of data read from said mass storage medium, said determined key being an analog key or a digital representation of an analog key, said data signal being an analog data signal or a digital representation of an analog data signal, wherein said data signal being an is said analog data signal if said key id an is said analog key, and wherein said data signal is said digital representation of said analog signal if said key is said digital representation of said analog key,

 determining, in response to said pattern comparison, which data within said data signal matches said key; and

 wherein said pattern comparison making step comprises computing a correlation coefficient between said key and said data signal, and wherein said match determining step comprises comparing said computed correlation coefficient with a predetermined

threshold value to thereby determine whether a match exists between said data key and said data signal.

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114. (previously presented) The method of claim 112 further comprising adjusting said predetermined threshold value to control whether said match determining step corresponds to an exact match operation or an approximate match operation.

115. (previously presented) The method of claim 112 wherein said key comprises said analog key and wherein said data signal comprises said analog data signal, and wherein said pattern comparison making step further comprises performing said pattern comparison making step with analog circuitry.

116. (previously presented) The method of claim 115 wherein the key determining step comprises generating said analog key from a digital key that is representative of the data desired to be retrieved from said mass storage medium.

117. (previously presented) The method of claim 112 further comprising reading data from said mass storage medium as a continuous analog data stream and sampling said continuous analog data stream at a high rate to thereby generate said digital representation of said analog data signal, and wherein said key determining step comprises sampling an analog key that is representative of the data desired to be retrieved from said mass storage medium at a high rate to thereby generate said digital representation of said analog key, and wherein said pattern comparison making step further comprises performing said pattern comparison making step with digital logic.

118. (previously presented) The method of claim 112 wherein said search command receiving step comprises receiving said search command from a remote processor over a network interface.